

a vacuum source disposed for communication with said substrate-holding area, whereby a vacuum can be established reaching to, and drawing upon, said substrate, thereby maintaining the substrate in said seated position.

52. (New) The apparatus of claim 51, further comprising a film disposed on said substrate, over said array of wells.

53. (New) The apparatus of claim 52, wherein said film is optically clear.

54. (New) The apparatus of claim 51, further comprising a passageway, said passageway communicating said vacuum source and said substrate-holding area.

55. (New) The apparatus of claim 51, wherein said substrate comprises a micro-plate or card.

56. (New) The apparatus of claim 51, wherein said components for real time fluorescence-based measurements of nucleic acid amplification products comprise at least a probe and primers.

57. (New) The apparatus of claim 51, further comprising an excitation beam adapted for optical communication with said components for real time fluorescence-based measurements of nucleic acid amplification products.

58. (New) The apparatus of claim 51, wherein the substrate-holding area includes indexing features for facilitating alignment of said substrate thereon.

59. (New) The apparatus of claim 58, wherein said indexing features include indexing bores.

60. (New) A method for biological reactions, comprising:
providing a substrate including an array of wells;
providing one or more components for real-time fluorescence-based measurements of nucleic acid amplification products in at least some of said wells;
placing said substrate on a substrate-holding area;

establishing a vacuum reaching to, and drawing upon, said substrate, thereby maintaining the substrate on said substrate-holding area.

61. (New) The method of claim 60, further comprising directing an excitation beam into each of a plurality of fluorescent mixtures separately contained in said array of wells.

62. (New) The method of claim 61, further comprising monitoring, in real time, the progress of each reaction.

63. (New) The method of claim 62, wherein said monitoring includes measuring the fluorescence intensity from each of said fluorescent mixtures.

64. (New) The method of claim 60, wherein said substrate comprises a micro-plate or card.--